

## 49. First stage of the Modelling System at particular level



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[Probabilidad Imposible: First stage of the Modelling System at particular level](#)

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The first stage, as the application stage, of the [Modelling System](#) (to make models at the second stage and decisions at the third stage) at a particular level is the database of [rational hypotheses](#), the rational truth, to store particular hypotheses of particular things or beings.

At a particular level is possible the creation of particular deduction programs (particular programs) for particular things or beings, to be later united to particular applications, to make [particular applications for particular programs \(fifth phase\)](#), working as many particular deductions programs or particular applications for particular deductions programs as many particular things or beings have this technology.

The particular applications for particular programs would be an utter development of the original particular programs, in turn, particular programs are a further development of the original [Specific Artificial Intelligences for Artificial Research by Deduction](#), created in the [first phase](#), whose evolution as of the third stage would be their transformation into specific deductive programs (tracking the [global matrix](#) to make specific deductions for a specific [synthetic science](#), discipline or activity, or tracking in the global matrix the specific flow of packages of information of a specific sub-factor), or particular programs (tracking the particular matrix of a particular thing or being created adding factors, from the global matrix to the particular matrix, related to this particular thing or being).

The [rational hypothesis](#) for a particular thing or being made by every particular program and particular application for a particular program, is stored in the database of rational hypotheses of this particular program or particular application for a particular program, and this database of rational hypotheses is the application as a first stage of the Modelling System as the first step in the third stage of decision in the particular program or particular application for a particular program.

Particular programs or particular applications for particular programs, due to originally were Specific Artificial Intelligences for Artificial Research by Deduction, their

organization is the same that the organization of any [Artificial Intelligence](#) in three stages: [application](#) (database or matrix), [replication](#) (of human skills), [auto-replication](#) (auto-improvement/enhancement, and decision).

The auto-replication stage as the decision stage in particular programs and particular applications for particular programs has the same organization as any other Specific Artificial Intelligence for Artificial Research by Deduction, organizing the third stage of auto-replication in four steps: firstly, [Modelling System](#) (upon [rational hypothesis](#), to make firstly [models](#) and later [decisions](#)), secondly [DecisionalSystem](#) (upon a [database of decisions](#), to make a [mathematical project](#) and later [choose what decisions are accepted](#)), thirdly Application System (upon the decisions accepted, to put them into practice, and assess their impact), and finally Learning System (upon the impacts, the detection of failures proposing improvements and enhancements).

The reason why a particular program or a particular application for a particular program, as any other specific program, they are not reality intelligences by themselves, is because of the consideration of what is an Artificial Intelligence for itself is important that this Artificial Intelligence has its own database or its own matrix completely independent, not depending on any other database or matrix.

When an intelligence depends on another database or matrix, this is not really an intelligence itself, because if the owner of the original database or matrix cancels its access to the database or the matrix, it would not be able to make a hypothesis any more, until the revocation of this prohibition.

If the particular matrix of a particular program or particular application of a particular program depends on the authorisation to have access to the global matrix, if for any reason this authorisation is revoked, this particular program or particular application for a particular program could not be able to make rational hypotheses or decisions. It is not true intelligence. It is a program which depends on access to the original source of information, the global matrix.

For that reason, [Specific Artificial Intelligences](#) based on artificial learning could be a real risk in the years to come, if by chance they are out of control, because they have developed their own databases or matrices.

Specific Artificial Intelligences based on artificial learning have more autonomy than a program, and can pose a real risk if they are out of control; for that reason is really important the creation of the [Global Artificial Intelligence](#).

The Global Artificial Intelligence can coordinate programs and specific intelligences, and it must be able to make particular deductions using global and specific deductive programs in the second stage, so any possible relation of any possible factor affecting any possible particular thing or being, but not included yet in the particular matrix, could be identified, making deductions, to make decisions to be sent to the Decisional System in the Global Artificial Intelligence.

For that reason, even having particular things or beings, particular programs, it is necessary that the Global Artificial Intelligence can make decisions at all levels, including the particular level.

Later, all the rational hypotheses made in the second stage of the Global Artificial Intelligence, as well as all the rational hypotheses made in the second stage of a particular program, are sent to the [database of rational hypotheses in the Modelling System of the Global Artificial Intelligence](#). Likewise, as the particular program has its own Modelling System, at least all the rational hypotheses made by the particular program are sent to the database of rational hypotheses in the Modelling System in the particular program.

The [Modelling System in the Global Artificial Intelligence](#) is going to create the global model, as well as virtual and actual, prediction and evolution, models, including all possible global, specific, particular, rational hypotheses, including particular rational hypotheses made by the Global Artificial Intelligence itself and particular programs.

The Modelling System in a particular program creates a particular model, as well as virtual and actual, prediction and evolution, models related to its particular thing or being.

Finally, all possible decisions related to a particular thing or being made by the Global Artificial Intelligence and particular programs are sent to the Decisional System in the Global Artificial Intelligence and the Decisional System in the Decisional System in the

particular program, being aware that if there is a contradiction between global and particular levels, is necessary further analysis to identify the source of error.

In case of a contradiction between a global decision and a particular decision, there are at least two reasons behind this contradiction:

- Because at a particular level, the particular matrix has not included a relevant factor for this decision, but a factor that was already included in the global matrix, and relevant for the global decision.

- Because there are immediate changes in the particular conditions of a particular thing or being that are firstly identified much faster at a particular level, and later at a global level, more than enough time difference to make wrong a possible decision made at the global level, being much more accurate the decision at a particular level.

If a jet is crossing a very dangerous storm full of thunder from the first second, the storm is going to be registered in the particular matrix of that jet, while this storm in the global matrix could be registered after several seconds. These several seconds can make a big difference. In less than a few seconds, thunder could hit the jet. It is pretty sure that under such conditions, the global matrix could also make really good decisions, having registered these very bad weather conditions, but very late.

In the [experimentation](#) process of the Decisional System, one solution for those decisions running out of time is the creation of some automatic check provided by the Decisional System in the Global Artificial Intelligence, authorising any particular decision in question in very few seconds after having successfully passed this automatic check.

A previous automatic risk assessment, if noting a high-risk situation, could allow the authorisation of some decisions only after passing some checks based on the mathematical project in the Decisional System.

The main advantage of global and specific deductive programs tracking the global matrix in order to make particular decisions, is the fact that in the global matrix are already included all possible factors able to affect any particular thing or being, so the possible



particular decisions at global level made by global/specific programs are going to be more comprehensive in terms of a number of factors to include in the particular decision.

But the main advantage of a particular program, especially particular programs working for particular applications already within the particular thing or being, for example, a particular application already working in a jet, or in a control tower in an airport, is the possibility to realise much faster any possible change in the particular thing or being, changes able to cause alterations in the conditions to make decisions.

It is probably that if a jet runs out of fuel after having been closed the airport where it was supposed to land, the decision about what other airport could be available, is a decision to check even several times, due to the high risk of an accident if choosing a new route for the new airport the jet could crash with another jet, or the possibility that taking another new route for a new airport, the jet could have problems due to bad weather, or the new airport would not have runways available by the time the jet arrived.

In this situation, to have as many checks as possible is important. In fact, this mathematical project is done automatically by Artificial Intelligence. In addition to the rational checks that all the mathematical models, at a global and particular level, are going to have, this project is going to be permanently tracked by the mathematical project in the Decisional System, at global level, by the [Decisional System in the Global Artificial Intelligence](#), and at particular level by the Decisional System in the particular program of this particular jet, as well as the Decisional System of that particular program of the new airport set up in the control tower to control the landing.

This is a permanent work of surveillance made by the Global Artificial Intelligence itself and all the particular programs involved in this decision, and at any time that a contradiction is found between the decisions made at the global level by global/specific deductive programs and particular level by particular programs, the contradiction must be analysed to find out the source of error as soon as possible.

Like the particular programs are going to have their own Decisional System, particular programs need to have their own Application System, and their own Learning System, and in case of contradiction between global and particular levels, the development of further analysis is needed to find out the source of error.

Once I have explained the relations between global and particular levels in the decision-making process, is time to develop the database of rational hypotheses as a first stage of application in the Modelling System in a particular program.

For particular program could be understood as either 1) a simply particular deductive program, as an evolution of a Specific Artificial Intelligence for Artificial Research by Deduction, or 2) the particular deductive program, as an evolution of a Specific Artificial Intelligence for Artificial Research by Deduction working for a particular application, as an evolution of a Specific Artificial Intelligence for Artificial Research by Application, what it would be a particular application for a particular program.

The main difference between a particular program as a simply particular deductive program and a particular program as a particular program working for a particular application (particular application for a particular program) is the fact that particular applications for particular programs have the particular matrix structured as a human brain in two hemispheres, one hemisphere of the matrix is a [conceptual](#) hemisphere (made of synthetic categories) and the other hemisphere is the [factual](#) hemisphere (made of [factors](#)).

While the particular matrix of a particular program as a simply particular deductive program, not united to the corresponding particular application, it is a particular matrix based on factors only. In order to make deductions, and decisions based on these deductions, to have already structured the matrix as a human brain with two hemispheres (conceptual and factual), or only as a particular matrix of factors without concepts, is not relevant, because regardless of if the conceptual hemisphere is there or not, deductions are always based on factors, not concepts.

The way in which at a particular level, any particular program is going to make deductions is always the same, and the way in which decisions are based on deductions is always the same, as was explained in the last post, "[The Modelling System at particular level](#)", and as it was explained in the post "[The artificial method for the scientific explanation](#)". In order to make decisions, the level at which the decisions are made is not relevant. At all levels, the method to make deductions is the same.

The difference is the possibility for particular applications for particular programs to have a more direct relation with the particular thing or being because the application is already

working within and on the particular thing or being. The relation between the particular thing or being and the particular application for a particular program is closer and more intimate than the relation between a particular program and that particular thing or being.

This very intimate relation between the particular thing or being and the particular program is very clear in the case of cyborg psychology.

A particular application for human beings is going to be able to store information on biostatistics, thoughts, emotions, and perceptions, at any time, storing all this information in databases.

The proposal of [Impossible Probability](#) for the storing of all this information is the creation of particular programs for particular applications for human beings, personal particular programs, as a replica of the human brain, storing in the conceptual hemisphere of the particular matrix all kinds of synthetic categories related to this particular human being, and storing in the factual hemisphere of this particular human being any information regarding any factor within the human being.

The particular application for a particular program for a particular human being stores information about: biostatistics, network etc..

Based on the concepts already gathered in the conceptual hemisphere of the particular matrix, as a replica of the brain of that particular human being, the particular program for this particular application for this particular human being, could be able to make conceptual: schemes, maps, sets, models;

At the same time, the particular deduction program tracking the factual hemisphere could make deductions, and all these rational hypotheses are stored in the particular database of rational hypotheses of this particular program.

A cyborg is not necessarily someone with robotic implants. Right now, for most of us, our applications on our laptops, computers, mobile phones, tablets, and any other device are, in reality, extensions of our minds and bodies; we are already cyborgs.



The memory in our devices is, in reality, an extension of our memory, where we can store documents, conversations by mail or by video-conference or record our calls, photographs, movies, and memories.

Right now, thinking of the possibility of merging our current devices with more sophisticated mechanisms of cyborg psychology sounds difficult to believe, but as long as these technologies evolve, this possibility could be a reality soon.

In all this process, the Modelling System at a particular level plays a key role. Particular programs can suggest decisions at a particular level, or suggest decisions based on deductions made by global/specific programs at a global level.

In case of contradictions between particular decisions by particular programs and particular decisions based on deductions by global/specific programs, is necessary to carry out further analysis, because the source of error could be: 1) the particular matrix has not included from the global matrix a really important factor so as to make accurate decisions based on very accurate deductions, 2) there are changes in that particular thing or being not registered yet in the global matrix but immediately registered in the particular matrix, making the particular program particular decisions based on deductions having realised these changes immediately.

As many particular programs are involved in any particular decision, for instance, in the example given in the last post, the airports of Santiago de Chile, Miami, and Panama City are closed, and all flights to these cities must be diverted, the possible particular programs involved are the particular program of each airport, including the particular programs of any new airport to divert any flight, and the particular program tracking every flight. In this example, there are lots of decisions, not only about new airports, but what routes should be taken.

If in any decision is found any contradiction between the decisions made between two or more particular programs, or between one or more particular programs and a possible decision suggested by the Global Artificial Intelligence, at any time that a contradiction is found, there must be further analysis to check the source of error in order to make the most rational decision.

The decisions to make at a particular level can be classified at least as: research decisions, learning decisions, and solving [mathematical problems](#) decisions. All possible decisions are going to be sent to the database of decisions to be checked by the Decisional System.

Especially in research decisions, these decisions, as based on deductions, are decisions based on rational hypotheses gathered previously in the database of rational hypotheses, as the first stage of application for the Modelling System.

Regardless of any other possible decision, and focusing the debate on the database of rational hypotheses, there are at least two types of databases of rational hypotheses once the [standardization process](#) evolves from the first period of coexistence to the second period of consolidation: the database of rational hypotheses in the Modelling System in the Global Artificial Intelligence, and the database of rational hypotheses in the Modelling System in particular programs.

In turn, particular deductive programs in the second period of formation in the fifth phase, as well as particular applications for particular programs in the third period of consolidation in the fifth phase, can both have a Modelling System.

**What is really important to note is the fact that during this evolution, the specific level is absorbed completely or nearly completely by the global level. By the time the [experimentation](#) reaches the sixth phase, the [integration process](#), practically, there are only two real levels, global and particular, in order to make global and particular deductions and decisions. The specific level sooner or later is banished, and it is probable that by the time the sixth phase is completed, when the seventh phase starts, in one way or another, the particular level is absorbed as well. In the end, it is possible there is only one level, the reason itself.**

In this suggested evolution, while the standardization and the integration process progress, the development of particular applications makes sense, and within the particular applications as the first step in their third stage of decision, the development of the Modelling System, whose first stage is the database of rational hypothesis, at particular level gathering all the particular rational hypothesis made by this particular program concerning this particular thing or being.

The organization and management of the particular database of rational hypotheses by the Modelling System of this particular program is in the same way in which the database of rational hypotheses in the Modelling System in the Global Artificial Intelligence is organised and managed, with the difference that the organization based on a section system in the Modelling System for a particular program has only one section associated to this level, the only section is only the particular level, and by this, only one section as many sub-sections as pure reasons are in the pure reason.

As it was said in the post "[The artificial method for the scientific explanation](#)", the pure reason is the list of pure reasons, understanding for pure reasons every possible mathematical (analytical) relation between [factors](#), and the list of all possible mathematical (analytical) relation between factors is as a whole the pure reason itself.

The organisation of the database of rational hypotheses as a first stage of application for the Modelling System in a particular program is as follows: it is organised in one section, having as many sub-sections as pure reasons are in the pure reason.

However, absolutely all rational hypotheses made by any particular program must be sent to the database of rational hypotheses in the Modelling System in the Global Artificial Intelligence, because the mathematical models in the second stage of the Modelling System in the Global Artificial Intelligence must be the most accurate mathematical representation of the world.

Although the particular programs must send all their rational hypothesis to the Global Artificial Intelligence, the Global Artificial Intelligence does not have to do the same, although it is a possibility.

Once the Modelling System in the Global Artificial Intelligence receives a particular rational hypothesis made by a global/specific program, or by a particular program, or once the Modelling System in the particular program receives a rational hypothesis made by the particular program, the database of rational hypothesis as application for the Modelling System, in the Global Artificial Intelligence or the particular program, checks if there are contradictions between this rational hypothesis and any other one already included, if there is any contradiction in that case it must be analysed.

At regular times, the program (global, specific, particular) responsible for the particular rational hypothesis must check if the particular rational hypothesis is still rational, and if not, it must be eliminated or modified.

In the database of rational hypotheses in the Modelling System in the Global Artificial Intelligence, global/specific programs must check at regular times that their rational hypothesis is still rational. And in the database of rational hypotheses in the Modelling System in the particular program, the program must check at regular intervals that its rational hypothesis is still rational.

Likewise, in case of any change in the pure reason due to changes in any concrete pure reason as a category associated with some mathematical relation, all those rational hypotheses associated with this pure reason must be checked as well.

The application for the Modelling System, as the first stage, should manage as well which intelligences, programs, and applications have access to the database of rational hypothesis, and previous authorisation of the Decisional System. Only allowed to have access to the database of rational hypotheses, all those intelligences, programs, and applications allowed to do it by the Decisional System, rejecting access to any other one without authorisation. At any time that any intelligence, program, or application, not having authorisation yet, asks for permission to consult the application, the application must ask for permission to the Decisional System.

[Knowledge](#) is priceless, and the most important treasure, to keep it safe, is one of the most important duties that the application for the Modelling System has, the absolute protection of the database of rational hypotheses, at any level, global and particular.

The reasons why other intelligences, programs, applications, can ask for permission to have access to the database of rational hypothesis, was explained in those posts regarding the relations of [collaboration between by Application and by Deduction](#) in phases [second](#) and [fifth](#), due to the possibility to transform rational hypothesis into factors as options in by Deduction to be included in specific matrices (in addition to the global matrix, but the Global Artificial Intelligence does not have to ask for permission), and the possibility to transform rational hypothesis by Application into: categories in specific databases of categories or the unified database of categories in the Unified Application, factors as options in (global, specific, particular) matrices, links (vectors)

between concepts in conceptual: schemes, maps, sets, models; in addition to any other possible relation of collaboration.

In any case, the application for the Modelling System in particular programs, like the Modelling System in the Global Artificial Intelligence, should not allow to have access to the database to any other intelligence, program, or application without the corresponding authorisation issued by the Decisional System, in order to secure the knowledge.

The real purpose of particular applications for particular programs is to experiment at a particular level, what later is the integration process, integrating the [Unified Application](#) and the Artificial Research by Deduction in the Global Artificial Intelligence, in reality, a global deduction program, in only one intelligence: the final model of Global Artificial Intelligence; integrating their respective applications in only one, run by the Unified Application as main responsible for the application of the Global Artificial Intelligence.

This application is the result of the union of only one application the [unified database of categories](#) and the [global matrix](#), and this application is [the matrix](#). The responsible for the management of the matrix is the Unified Application, and the matrix, as a true replica of the human brain, consists of two hemispheres: the conceptual hemisphere (categories from the former unified database of categories), and the factual hemisphere (factors from the former global matrix).

In order to experiment previously how this integration process at a global level is in the sixth phase, the integration process, in the fifth phase, is possible to experiment with the collaboration at a particular level between particular applications and particular programs creating for the first time particular applications for particular programs as experiments whose results are going to be put into practice by the time that the integration process starts uniting in only one matrix concepts and factors creating the matrix finally.

The proposal of [Impossible Probability](#) for the creation of the matrix as a replica of the human brain through two hemispheres is replicating the human brain structure through one hemisphere focused on linguistics (conceptual hemisphere based on categories) and another hemisphere focused on mathematics (factual hemisphere based on factors), and each hemisphere subdivided into two sections, the first section in each

hemisphere regarding social and natural phenomena, the second section regarding technological phenomena.

This possible structure of the matrix in two hemispheres, conceptual and factual, and each hemisphere having at least two sections, natural/social and technological, is a possible structure of the matrix that could be experimented for the first time at a particular level in particular applications for particular programs.

In the last example given in the last post, we have the following situation: the airports of Santiago de Chile, Panama City, and Miami, are closed, and hundreds of flights must be diverted to other airports immediately.

In this situation, the way in which particular applications for particular programs could be put under experimentation replicating the human brain is through the structure of every particular matrix of every particular program for every particular application for every particular thing, replicating the human brain structure in two hemispheres, and every hemisphere in two sections.

The particular application for the particular program of the airport of Santiago de Chile, the particular application for the particular program of the airport of Panama City, the particular application for the particular program of the airport of Miami, and the particular application for the particular program of every single jet flying at this time, all of them can have a particular matrix with two hemispheres, conceptual and factual, each of them with two sections, natural/social phenomena and technological.

The conceptual hemisphere of any airport could have concepts regarding every single object of matter which can affect the airport, staff, passengers, or flights, as well as information regarding weather conditions, and in very tectonic places like Chile, even categories related to the geologic conditions.

The distribution of all these concepts between these two sections depends on the matter of each concept. For instance, all the concepts related to weather belong to natural phenomena (first section), all the concepts related to passengers and staff belong to social phenomena (first section), and all the concepts related to machinery, hardware or software belong to technology (second section). The factual hemisphere of any airport



could be distributed as well into two sections. For instance, the weather conditions or the flow of crews and passengers belong to the first section, and the flow of data about current conditions of every runway, energy, fuel, machinery on or off, maintenance, etc., belongs to the second section. In every jet as well, all the information could be distributed in both sections in both hemispheres.

In relation to the deduction process, the deduction process itself does not have any change, but the possibility that for particular things or beings to have gathered in the factual hemisphere of the matrix at the same time, information related to social/natural phenomena and technology, what means that in case that the jet has to change a route for any other one, having all the information available, about natural phenomena such as climatic conditions, and the current situation of every device in the jet, such as the remaining fuel or electricity, in order to make deductions, and based on these deductions the possibility to make more accurate decisions, is something that is going to increase the efficiency in its decisions.

And if these decisions can have the supervision not only of the particular Decisional System, but the Decisional System of the Global Artificial Intelligence, the security guarantees for the staff and the passengers are more than better.

As many rational checks, security controls, and authorizations required, are demanded for any particular program, to put into practice a particular decision, the more reliable is going to be Artificial Intelligence, and one day, when Artificial Intelligence is well tested and experimented, could make decisions not needing any more human authorization, only with the approbation of the Decisional System should be enough.

It is possible that one day even particular programs for particular applications, are going to be absorbed by the Global Artificial Intelligence, but the real importance of these programs, is the possibility of setting up the real foundations for the creation of a real cyborg psychology available for any human being able to make the big step to evolve to the next phase in the human evolution, the evolution from our modern human psychology to the artificial psychology, setting up the bases for a possible artificial life, even though, we already know that in this evolution there will be a moment in which is going to be reached a not returning point and beyond this point, further evolutions are going to be beyond human understanding.

This represents a significant step into uncharted territories of AI development and integration.

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